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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,099	07/29/2003	Richard John Schmidt	18174A	6365
23556	7590	02/14/2006	EXAMINER	
KIMBERLY-CLARK WORLDWIDE, INC.			TORRES VELAZQUEZ, NORCA LIZ	
401 NORTH LAKE STREET			ART UNIT	
NEENAH, WI 54956			PAPER NUMBER	

1771

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/629,099	Applicant(s) SCHMIDT ET AL.	
	Examiner Norca L. Torres-Velazquez	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-18, 24, 26-34 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-18, 24, 26-34 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 01, 2005 has been entered.

2. Applicant's arguments filed 12/1/05 have been fully considered but they are not persuasive. With regards to the obviousness-type double patenting rejection of claims 1, 2 and 32-34 over '265 in view of Pike et al., Applicants argue that the '265 is not teaching a laminate.

It is the Examiner's position that the final product of the '265 provides a structure with three distinct layers similar to the structure claimed in the present invention. The rejection is maintained herein.

3. Applicant's arguments with respect to the prior art rejections of claims 1-11, 13-18, 24, 26-34 and 37 have been considered but are moot in view of the new ground(s) of rejection.

4. Claims 12, 19-23, 25 and 35-36 have been canceled.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 30 depends on canceled claim 19 and claim 31 depends on claim

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30. For examining purposes the Examiner assumes that claim 30 depends on independent claim 1.

7. Claim 24 recites the limitation "the crimped multicomponent filaments" in line 2. There is insufficient antecedent basis for this limitation in the claim. For examining purposes the examiner assumes that the high loft layer of claim 1 comprises crimped multicomponent filaments with a side-by-side configuration.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-9, 26-29 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over SANDOE et al. (US 2001/0036788 A1).

SANDOE et al. discloses a headliner made from a laminate comprising a core layer sandwiched between two stiffening layers. (Abstract, [0012]) The core layer batt has a basis weight in the range of 6-24 ounces/yd² and a thickness of 0.5-2.0 inches [12.7 mm - 51 mm]. [0014]. It is noted that the term "high loft material" has been described to be a material with a z-direction thickness generally in excess of about 3 mm. (Specification page 6, lines 15-22) Based on the basis weight and thickness disclosed by the reference, the Examiner has calculated that the density of the core layer of SANDOE et al. ranges between 3.99-32.03 kg/m³.

The outer layers comprise thermoplastic fibers with a denier in the range of 0.8 to 200, 0.1 to 1.0 inches thick. The outer layers (or stiffening layers) have a basis weight in the range of

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3 to 24 ounces/yd². The reference further teaches the use of polypropylene fibers. [0030]-[0031] Based on the basis weight and thickness of the outer layers disclosed by the reference, the Examiner has calculated that the density of the outer layers of SANDOE et al. ranges between 4.00-325.48 kg/m³.

SANDOE et al. teaches that the headliners of their invention have good sound absorbing properties. [0018] The reference further teaches that the first and second outer layers each have a density greater than the core layer. [0019]

With regards to the fiber diameter of the different layers, it is noted that the reference teaches the use of polypropylene and based on the density of polypropylene provides fibers in the outer layers with diameters in the range of 11-178 μm . The present invention claims thermoplastic fibers having an average fiber diameter of less than about 7 microns in the outer layers. It is noted that SANDOE et al. teaches that the core layer alone absorbs a much greater percentage of sound at all frequencies than the outer layers. In most cases, the core layer absorbs at least twice as much as the outer layers. The superior sound absorbing characteristics of the core layer over the outer layers is believed to be attributable to the use of the fine denier fibers in the core layer and the greater thickness of the core layer. [0058]

While SANDOE et al. is silent to the use of fiber diameters of less than about 7 microns in the outer layers, it is the Examiner's position that it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the outer layers and provide them with fibers of finer diameters with the motivation of increasing the sound absorbing capacity of the outer layers as well since the total fiber surface area of the layer has an effect on the sound absorption property of a material as disclosed by SANDOE et al. [0061]

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With regards to claim 6, which claims a thickness between about 0.3 mm to about 1.0 mm, it is the Examiner's position that given the teachings of SANDOE et al. that indicates that the sound absorption property of a material is a direct function of resistivity, which is itself a function of the thickness of the layer and the total fibers surface area of the layer. [0061] The use of a reduced thickness in the outer layers would be recognized when an application does not require a high degree of sound absorption.

It is well settled that determination of optimum values of cause effective variables such as fiber diameter and the thickness of the layer is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). It is further noted herein that the Examiner considers that such modification will still provide a laminate material suitable for acoustical insulation and while the outer layers of the SANDOE et al. reference are provided as reinforcement for the particular application of headliners, the present invention claims an acoustical insulation material and the proposed modification will read on the presently claimed material.

10. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over SANDOE et al. (US 2001/0036788 A1).

Although SANDOE et al. does not explicitly teach the claimed pressure drop it is reasonable to presume that this property is inherent to the laminate of SANDOE et al. Support for said presumption is found in the use of like materials (i.e. a laminate comprising a core layer sandwiched by two outer layers made of similar materials to the claimed invention). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of at least 1 mm of water at a flow rate of about 32 liters/min would obviously have been present one the SANDOE et al. product is provided. Note *In re Best*, 195

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USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102. Reliance upon inherency is not improper even though rejection is based on Section 103 instead of Section 102. *In re Skoner, et al.* (CCPA) 186 USPQ 80

11. Claims 13-18, 24 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over SANDOE et al. as applied above, and further in view of THOMPSON (US 5,841,081) and PIKE et al. (US 5,759,926).

SANDOE et al. is silent to the use of multicomponent fibers in the outer layers. SANDOE et al. is also silent to the splittable multicomponent fibers claimed herein and the crimped multicomponent filaments claimed herein.

THOMPSON is directed to an acoustical insulation material and the reference discloses positioning the material between a source area and a receiving area such that a major face of the insulation intercepts and attenuates sound waves passing from the source area to the receiving area. (Abstract) The reference teaches the use of meltblown bicomponent micro fibers that include polyolefins such as polypropylene and polyethylene in blends. (Col. 6, lines 39-56) The reference further teaches fibers with side-by-side configuration. (Col. 7, lines 1-2)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the outer layers of SANDOE et al. and provide them with multi-component fibers with the motivation of providing the web layer with materials that have an adhesive component and a supporting component arranged in a coextensive side-by-side configuration along the length of the fiber that will provide the layer with sufficient integrity that it can withstand handling and further processing during lamination.

However, SANDOE et al. and THOMPSON are silent to the splittable multi-component fibers claimed herein and the crimped multi-component filaments claimed herein.

PIKE et al. teaches that crimped splittable conjugate fibers are highly useful for producing lofty nonwoven fabrics since the fine fibers split from the conjugate fibers and the crimps increase the bulk or loft of the fabric. This type of fabric exhibits desirable strength properties of a fabric containing highly oriented fibers. (Col. 5, lines 29-39). On Figure 1, the reference shows a side-by-side conjugate fiber configuration.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the insulation of SANDOE et al. with splittable and/or crimpable fibers with the motivation of increasing the bulk or loft of the fabric or alternatively the bulk of the layer may be achieved by using the splittable and/or crimpable fibers of PIKE et al.

12. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over SANDOE et al. (US 2001/0036788 A1).

SANDOE et al. discloses that the headliners of their invention are free of fiberglass [0018] and that fiberglass has been used in the production of commercial headliners to provide the stiffening layers (outer layers). SANDOE et al. teaches away from using fiberglass in the particular application of headliners of their invention because they tend to be relatively brittle and they can cause handling problems. [0006]

RAPP et al. teaches the use of irregularly bi-component shaped glass fibers is found to be useful in insulation application. (Col. 1, lines 10-20) The reference teaches producing such fibers from a rotary fiber forming process. (Col. 4, lines 8-10).

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Since both references are directed to insulation materials, the purpose disclosed by RAPP et al. would have been recognized in the pertinent art of SANDOE et al. It is noted herein that the Examiner is relying on the laminate structure taught by SANDOE et al. as a primary reference and not particularly in the application of such laminate in the production of a headliner. It is clear on the record that from the standpoint of producing a headliner, the SANDOE et al. reference is clear to avoid the inclusion of fiberglass in the stiffening (outer) layers, but nothing of record precludes the use of glass fibers in the core layer of an insulation laminate.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the core material of SANDOE et al. and provide it with dual-glass fibers with the motivation of producing a more uniform structure without the need of a binder in the batt as disclosed by RAPP et al. (Col. 1, lines 35-49)

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1, 2 and 32-34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 9 and 13 of U.S. Patent No.

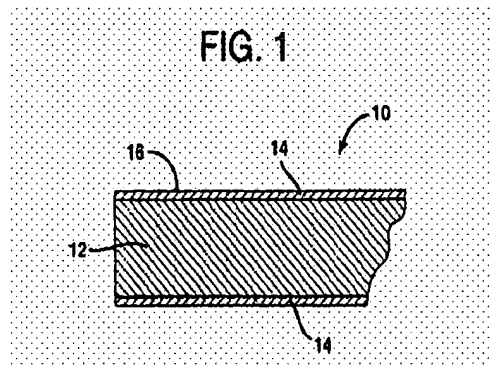
6,669,265 (Application No. 10/160,776) in view of PIKE et al. (US 5,759,926).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the insulator of the copending application comprises most of the limitations of the present invention, however, it fails to teach the presently claimed crimped multicomponent filaments. PIKE et al. teaches that crimped splittable conjugate fibers are highly useful for producing lofty nonwoven fabrics since the fine fibers split from the conjugate fibers and the crimps increase the bulk or loft of the fabric. This type of fabric exhibits desirable strength properties of a fabric containing highly oriented fibers. (Col. 5, lines 29-39). On Figure 1, the reference shows a side-by-side conjugate fiber configuration.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the insulation of the copending application with splittable and/or crimpable fibers with the motivation of increasing the bulk or loft of the fabric or alternatively the bulk of the layer may be achieved by using the splittable and/or crimpable fibers of PIKE et al.

15. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,893,711 (Application No. 10/212,410) in view of TILTON (US 2004/0023586 A1), TILTON (US 2004/0002274 A1) and PIKE et al. ('926).

Claim 1 of the copending application provides the structure of the presently claimed additional layer of claim 36 of the present invention. However, the copending application is silent to the use of such layer in a laminate as claimed herein. The '586 reference provides an acoustical insulation laminate that comprises the first and second layers claimed herein and teaches the use of an additional layer. However, it fails to teach the use of the additional high-density layer on the side of the second layer. The '274 reference provides such structure in which the high-density layers form the facing layers of the insulation laminate. (Refer to Fig.1 below)



It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the acoustical insulation material of the copending application and use it as a facing layer with the motivation of producing a laminate that has an enhanced aesthetic appearance as disclosed by TILTON '274 [0002]. With regards to the crimped fibers, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the insulation of the copending application with splittable and/or crimpable fibers with the motivation of increasing the bulk or loft of the fabric or alternatively the bulk of the layer may be achieved by using the splittable and/or crimpable fibers of PIKE et al.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

STALEGO US 2,998,620

SWAN et al. US 5,773,375

BYMA et al. US 6,322,658 B1

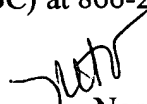
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-

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1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

February 1, 2006